ABSTRACT OF THE DISCLOSURE

An air conditioning system providing (a) Heating and dehumidifying mode, (b) Cooling and dehumidifying mode and (c) Warming mode is disclosed to include a lower layer air passage provided with indoor air inlet and outlet valves and outdoor air inlet and outlet valves, an upper layer air passage provided with indoor air inlet and outlet valves and outdoor air inlet and outlet valves, an intermediate air passage provided with an air valve in communication between the lower layer air passage and the upper layer air passage, and a valve control system adapted to control closing/opening of the valves in the lower layer air passage, upper layer air passage and intermediate air passage.